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10/681,081	10/08/2003	Teruhiko Ueyama	1232-5172	6248

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EXAMINER	
MISLEH, JUSTIN P	
ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
04/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/681,081	UEYAMA, TERUHIKO	
	Examiner	Art Unit	
	JUSTIN P. MISLEH	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 7 and 9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 7 and 9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed January 22, 2008 have been fully considered but they are not persuasive.

2. Applicant's argues, "In particular, Noriyuki fails to disclose a determination device which determines whether to perform an exposure correction regardless of the magnitude of an exposure error" (see 2nd paragraph, page 2).

3. Applicant further argues, "when the exposure level is being corrected manually, if the exposure error (e.g., the gain alpha) is high enough (as indicated by the signal amplification factor) the exposure level is adjusted to become equal with the correct exposure level (AveC=K) ... [thus,] Noriyuki does, in fact, determine whether to perform exposure correction on the basis of the magnitude of the exposure error and, as such, Noriyuki does not teach an image sensing apparatus which determines not to correct the exposure error regardless of a magnitude of the exposure error as disclosed by Applicant" (see paragraph spanning pages 4 and 5).

4. The Examiner respectfully disagrees with Applicant's position. Applicant's Claim 1, for example, recites in-part, "a determination device which determines whether or not to correct the exposure error on the basis of **at least one** of **the setting state** of the image sensing apparatus that is obtained by said setting state determination device, **an operation state** of the image sensing apparatus, and **an object brightness state** in image sensing, wherein **said determination device determines not to correct the exposure error** in a case that **at least one** of **the setting state** of the image sensing apparatus, **the operation state** of the image sensing

apparatus, and **the object brightness state satisfies a predetermined condition**, regardless of a magnitude of the exposure error" (emphasis added).

5. According to this language, the determination device bases its decision on either a) the setting state, b) an operation state, or c) an object brightness state satisfying a "predetermined condition". This fact is further emphasized when the language indicates that the decision is made "regardless of a magnitude of the exposure error." The Examiner respectfully submits the control section (20) of Noriyuki operates in a similar fashion.

6. For instance, Noriyuki discloses, as stated in paragraph 0050, that the exposure is assumed correct during an automatic exposure operation and is assumed to have errors during a manual exposure operation. In the remarks (filed January 22, 2008), Applicant apparently agrees. Specifically, Applicant states, "That is, when the exposure level is being corrected manually, if the exposure error (e.g., the gain alpha) is high enough (as indicated by the signal amplification factor) the exposure level is adjusted to become equal with the correct exposure level (AveC=K)" (see page 4, last paragraph - emphasis added by Examiner).

7. Therefore, in Noriyuki, it only after the determination device (control section 20) determines that the "setting state" is in a manual correction mode – i.e., "satisfies a predetermined condition" – that the level amender (19) performs exposure correction. The Examiner acknowledges that the exposure correction is based upon the magnitude of exposure error. However, the Examiner respectfully maintains that the claimed determination is based upon the setting state of image sensing apparatus (i.e., automatic or manual) mode not based upon whether there is an actual exposure error. For these reasons, the rejection of Claims 1 and 7 will be maintained.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1, 4, 5, 7, and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by Noriyuki (JP 2000-069356 A).

10. For the following rejections, the Examiner will rely upon a computer translation of Noriyuki. Additionally, Claims 1 and 7 appear to be corresponding apparatus and method claims – accordingly, they will be rejected together. Finally, the Examiner's response to arguments above is fully incorporated in the rejections below.

11. For **Claims 1 and 7**, Noriyuki discloses, an image sensing apparatus comprising:

a setting state determination device (drawing 5, control section 20) which determines a setting state (page 6, paragraph 34, noted that the control section carries out centralized control of the camera. page 6, paragraph 38, noted that the state of camera shifts to the next state #2 when the shutter button 9 is pushed) of the image sensing apparatus in image sensing;

an exposure calculation device (drawing 5, exposure control value operation part 201) which performs photometry for image sensing to calculate an exposure level (page 6, paragraph 35, noted that 201 computes an exposure control value using the photometry data inputted from the photometry section) upon an image sensing preparation instruction by an image sensing preparation instruction member (drawing 5, shutter carbon button 9, page 6, paragraph 38, noted

that when the shutter button is pushed, control section 20 drives the photometry section 3 to carry out the exposure control value operation, which is the exposure calculation);

an exposure level calculation device (drawing 5, exposure level operation 202) which calculates an exposure level (page 6, paragraph 36, noted that 202 computes the exposure level of the photographed image.) of an image signal output after image sensing;

an exposure correction calculation device (drawing 5, the amendment gain operation 203) which calculates an exposure error value (page 6, paragraph 36, noted that 203 calculates the gain alpha for amending the exposure level) from the exposure level calculated by said exposure calculation device (page 6, paragraph 35, noted that the data obtained in 201 is inputted into 203) and the exposure level of a sensed image that is calculated by said exposure level calculation device (page 6, paragraph 36, noted that the exposure level obtained in 202 is inputted into 203);

a determination device (control section 20; see paragraph 0033) which determines whether or not to correct the exposure error (page 6, paragraph 36, noted that 203 calculates the gain alpha for amending the exposure level by comparing the data obtained from 201 and 202) on the basis of at least one of the setting state of the image sensing apparatus that is obtained by said setting state determination device, an operation state of the image sensing apparatus, and an object brightness state (drawing 6, photographic subject brightness #3, page 6, paragraph 39, noted that the brightness value is computed in this state) in image sensing, wherein said determination device determines not to correct the exposure error in a case that at least one of the setting state of the image sensing apparatus, the operation state of the image sensing apparatus, and the object brightness state satisfies a predetermined condition, regardless of a magnitude of

the exposure error calculated by said exposure correction calculation device (see Examiner's explanation below), and;

an exposure error correction device (drawing. 5, level amendment section 19) which performs an exposure correction (page 6, paragraph 33 and page 8, paragraph 54, noted that the 19 amplifies the level of each pixel data by gain alpha and performs level amendment of the image data) by using the exposure error calculated by said exposure correction calculation device, when it is determined by said determination device to correct the exposure error (page6, paragraph 33, noted that level amender 19 performs level amendment based on the amendment gain 203 inputted from a control section 20).

Noriyuki discloses a situation where instead of an automatic exposure operation, a manual exposure operation is carried out by the photographer. Noriyuki states in this regard, "Since it extracts based on the photographic subject brightness BvC and a value Av and the exposure time Tv are set up when exposure level of an image pick-up image is not expressed and an error arises neither in the photometry value of the photometry section 3 nor exposure control of CCD 10 nor the throttling control of diaphragm 12 at the time of photography, naturally this exposure level AveC serves as AveC=K (correct exposure level) … [however,] it is general for an error to arise with one which participates in exposure control in fact of elements, and to become AveC!=K … [the] gain alpha for exposure level amendment shows the signal amplification factor for performing level adjustment of exposure level so that it may become with AveC=K in AveC!=K" (see Noriyuki, paragraph 0050, computer translation).

In other words, the exposure is assumed correct during an automatic exposure operation and is assumed to have errors during a manual exposure operation. This determination is not

made based upon the magnitude of the presumed error, rather it is based upon at least the operation state/setting state. Therefore, Noriyuki discloses a situation where, "a determination device which... determines not to correct the exposure error in a case that at least one of the setting state ..., the operation state ..., and the object brightness state satisfies a predetermined condition, regardless of a magnitude of the exposure error calculated by said exposure correction calculation device", as now claimed.

12. As for **Claim 4**, Noriyuki teaches the apparatus according to claim 1, wherein the operation state (drawing 6 and page 6, paragraph 37, the flow chart of photography e actuation of the digital camera) of the image sensing apparatus includes a state in which an image sensing processing start instruction is received from an image sensing start instruction member (drawing 5, shutter carbon button 9) before an end (drawing 6, the operation state from #1 to #2 and page 6, paragraph 38, the shutter button is pushed at #1 before the completion of operation state #2) of exposure calculation processing (drawing 6, photometry data #2, page 6 paragraph 38, photometry data is used to carry out the exposure control value operation 201) by said exposure calculation device (201) that Starts upon reception of an image sensing processing preparation start instruction (drawing 6, the operation state from #1 to #2 and page 6, paragraph 38, the shutter button is pushed at #1 to start the instruction and to change the operation state to #2) by the image sensing preparation instruction member (drawing 5, shutter carbon button 9), and when the image sensing processing start instruction is received before the end (drawing 6, the operation state from #1 to #2 and page 6, paragraph 38, the shutter button is pushed at #1 before the completion of operation state #2) of exposure calculation processing (drawing 6, photometry data #2, page 6 paragraph 38, photometry data is driven by control section 20 to carry out the

exposure control value operation 201) by said exposure calculation device (201), an image is sensed at an exposure value (drawing 6, photometry data #2, photometry data is computed at this .state) obtained during exposure calculation processing, said exposure correction calculation device (drawing 5, the amendment gain operation 203) calculates the correction amount of the exposure error value (page 6, paragraph 36, noted that 203 calculates the gain alpha for amending the exposure level by comparing the data obtained from 201 and 202) by using information in exposure calculation (201) so as to obtain a sensed image at correct exposure, and said exposure error correction device (drawing 5, level amendment section 19) corrects the exposure error of the sensed image by using the correction amount (page 6, paragraph 33 and page 8, paragraph 54, noted that the 19 amplifies the level of each pixel data by gain alpha and performs level amendment of the image data).

13. As for **Claim 5**, Noriyuki teaches the apparatus according to claim 4, wherein when the image sensing processing start instruction is received (page 6, paragraph 38, the shutter button is pushed at #1 to start the photography actuation of the camera) before the end (drawing 6, the operation state from #1 to #2 and page 6, paragraph 38, the shutter button is pushed #1 before the completion of operation state #2) of exposure calculation processing (drawing 6, photometry data #2, page 6, paragraph 38, photometry data is used to carry out the exposure control value operation 201) by said exposure calculation device (201), and the setting state of the image-sensing apparatus includes at least one of a state (drawing 6, operation state #8) in which an exposure correction value is set (page 8, paragraph 54, noted that control section 20 sets the gain alpha as the level amendment section 19), a state in which an exposure condition obtained by photometry is held, a state in which a photometry method is set to spot photometry, a state in

which a manual exposure, mode is set, and a state in which a long shutter mode is set, exposure starts (drawing 6, #5 and page 7 paragraph 41, noted that the charge storage/exposure of CCDIO starts) after a correct exposure value is calculated (page 8, paragraph 54, noted that control section 20 sets the gain alpha as the level amendment section 19) at the end of calculation processing by said exposure calculation device (201).

14. As for **Claim 9**, Noriyuki teaches a computer-readable recording medium (drawing 5, image memory 18) characterized by recording a program (page 6, paragraph 34, noted that the control section 20 carries out the centralized control of the photography actuation of the camera and it consists of a microcomputer which executes the processes of the exposure calculation. Thus it is an inherent feature that these programs are stored in a computer-readable recording medium to be executed by the microcomputer) defined in Claim 7.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. **Claims 2 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Noriyuki (JP 2000-069356 A) in view of Kubo (US 7,030,911 B1).

17. As for **Claim 2**, Noriyuki teaches all claimed limitation with the exception that he does not explicitly teach the apparatus according to claim 1, wherein the setting state of the image sensing apparatus includes at least one of a state in which an exposure correction value is set, a

state in which an exposure condition obtained by photometry is held, a state in which a photometry method is set to spot photometry, a state in which a manual exposure mode is set, and a state in which a long shutter mode is set, and when any one of the states is set, said exposure correction calculation device does not calculate, the correction amount of the exposure error value, and said exposure error correction device does not correct the exposure error of the sensed image.

In an analogous art, Kubo teaches a digital camera exposure control method comprises of a setting state (fig. 6 and col. 7 lines 15-20, noted that the flow chart depicts the operation state of the digital camera) of the image sensing apparatus includes at least one of a state in which an exposure correction value is set, a state in which an exposure condition obtained by photometry is held, a state in which a photometry method is set to spot photometry, a state in which a manual exposure mode is set, and a state in which a long shutter mode (col. 7 lines 48-56, noted that when S2 switch is not pressed and S1 switch continues being on for not less than the predetermine time, it is determined that the exposure time is long) is set, and when any one of the states is set, said exposure correction calculation device does not calculate the correction amount of the exposure error value (col. 7, lines 48-56, since that when the operation state is returned back to #5, the exposure control value #27 will not be carried out in use), and said exposure error correction device does not correct the exposure error (col. 7, lines 48-56, since that when the operation state is returned back to #5, the exposure control value #27 will not be carried out in use, thus there will be no correction amount be used to correct the exposure error) of the sensed image.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the device of Noriyuki by incorporating the method of setting the long exposure mode as taught by Kubo in order to have the advantage of power saving feature in preventing the execution of rest of the operation states.

18. As for **Claim 6**, Noriyuki teaches all the claimed limitation with the exception that he does not explicitly teach the apparatus according to claim 1, wherein, in an operation state in which an image sensing start instruction member is not pressed is held for not less than a given threshold time after the image sensing preparation instruction member is pressed, said exposure correction calculation device does not calculate the correction amount of the exposure error value, and said exposure error correction device does not correct the exposure error of the sensed image.

In an analogous art, Kubo teaches a digital camera exposure control method comprises of an operation state (fig. 6 and col. 7 lines 15-20, noted that the flow chart depicts the operation state of the digital camera) in which an image sensing start instruction member (fig. 6, S2 switch #23) is not pressed is held for not less than a given threshold time (col. 7 lines 48-56, noted that when $2 switch is not pressed and S1 switch continues being on for not less than the predetermine time, it is determined that the user has no intention to perform shooting and the processing state will return back to state #5) after the image sensing preparation instruction member is pressed (fig. 6, S1 switch #17, col. 7 lines 49-51, S1 switch is on), said exposure correction calculation device does not calculate the correction amount of the exposure error value (col. 7, lines 48-56, since that when the operation state is returned back to #5, the exposure control value #27 will not be carried out in use), and said exposure error correction device does

not correct the exposure error (col.7, lines 48-56, since that when the operation state is returned back to #5, the exposure control value #27 will not be carried out in use, thus there will be no correction amount be used to correct the exposure error) of the sensed image.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the device of Noriyuki by incorporating the method of setting the threshold time for the shutter switch button in controlling the operation state as taught by Kubo in order to have the advantage of power saving feature in preventing the execution of rest of the operation states.

19. **Claims 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Noriyuki (JP 2000-069356 A) in view of Numata et al. (US 6,654,062 B1).

20. As for **Claim 3**, Noriyuki teaches all the claimed limitation with the exception that he does not explicitly teach the apparatus according to claim 1, wherein the setting state of the image sensing apparatus includes a state in which a flash is so set as to emit light, and when the flash is so set as to emit light, a correction width of the correction amount of the exposure error value is changed in consideration of at least one of a flashlight amount, a distance to an object, a stop state, and a setting sensitivity.

In the same field of endeavor, Numata teaches an electronic camera comprises a flash unit. Wherein, he discloses a state (col. 5, line 43, flash exposure mode) in which a flash is so set as to emit light (col. 6, lines 50-55, noted that flash exposure is performed), and when the flash is so set as to emit light, a correction width of the correction amount of the exposure error value is changed (col. 6, lines 55-60, noted that the aperture, shutter speed and gain amplifier are changed

according to the value of optimum flash exposure) in consideration of at least one of a flashlight amount (col. 6, lines 50-55, noted that the optimum flash exposure is computed), a distance to an object, a stop state, and a setting sensitivity.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the state of performing flash exposure as taught by Numata in Noriyuki's device in order to adjust the aperture of iris, shutter speed and gain values corresponding to the change of the flash amount (col. 6, lines 50-60, noted that these parameters change based on the value of optimum flash exposure).

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lin Ye can be reached on 571.272.7372. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Justin P. Misleh/
Examiner, Art Unit 2622
April 18, 2008